## Contents of Animal Feed Science and Technology, Volume 31

VOL. 31 NOS. 1-2

OCTOBER 1990

Effect of supplementing mature grass hay with dried Leucaena leaves on organic matter

digestibility and voluntary intake by sheep	
R.N. Mero (Mpwapwa, Tanzania) and P. Udén (Uppsala, Sweden)	1
Influence of emulsification on the apparent metabolisable energy of two dry fats given	
to broiler chicks of increasing age	
J. Wiseman (Loughborough, Gt. Britain)	9
Physical characteristics of feeds and their relation to nutrient components and dry	-
matter disappearance in sacco	
P.S. Mir, Z. Mir (Kamloops, B.C., Canada) and J.W. Hall (Vancouver, B.C.,	
Canada)	17
Effect of a new ionophore antibiotic, abierixin, on the digestion of a roughage-based diet	1 /
measured in sheep; comparison with results obtained in Rusitec	
L. Gomez, J.P. Jouany, M.C. Hillaire (Ceyrat, France) and C. Bogaert (Aubière,	
France)	29
Evaluation of scallop viscera silage as a high-protein feedstuff for growing-finishing	27
swine	
R.O. Myer, D.D. Johnson, W.S. Otwell, W.R. Walker and G.E. Combs (Marianna,	
FL, U.S.A.)	43
In vitro continuous culture studies on the effect of nitrogen source on rumen microbial	
growth and fibre digestion	
R.J. Merry, A.B. McAllan and R.H. Smith (Maidenhead, Gt. Britain)	55
Morphology, fiber composition and mean particle diameter relationships in ground	33
barley and oat forages at different ages	
D.J.R. Cherney, D.R. Mertens (Madison, WI, U.S.A.) and J.E. Moore (Gainesville,	
FL, U.S.A.)	65
Marigold extracts and maize gluten meal as broiler pigment sources in maize and wheat-	00
based diets	
B.L. Damron (Gainesville, FL, U.S.A.), S.V. Amato (Atlanta, GA, U.S.A.) and F.H.	
	79
Effects of sugar-beet pulp on ruminal and lactation performances of cows having	
different rumen fermentation patterns	
H. Kajikawa, M. Odai, M. Saitoh, T. Takahashi, R. Tano, H. Abe and A. Abe	
(Ibaraki, Japan)	91
The effect of barley-sorghum grain processing and form of concentrate mixture on the	
performance of lambs, kids and calves	
S. Economides, A. Koumas, E. Georghiades and M. Hadjipanayiotou (Nicosia,	
Cyprus)	105
Urea treatment of green panic: effect on in vivo digestibility and on digesta mean	
retention time	
N. Silanikove (Qiryat-Shemona, Israel), A. Brosh, Z. Holzer and D. Levy (Haifa,	
Israel)	17
Chamical composition and in vites disaction to anodist disactibility of field award and	

barn-cured grass hays A.R. Moss and D.I. Givens (Stratford-upon-Avon, Gt. Britain)  Effect of additives on the quality of big-bale silage	
A. Jonsson, H. Lindberg, S. Sundås, P. Lingvall and S. Lindgren (Uppsala, Sweden). The estimation of vicine, convicine and condensed tannins in 22 varieties of fababeans (Vicia faba L.)	139
PX. Wang (Wuhan, China) and K.H. Ueberschär (Celle, F.R.G.)	157
Succession of mycoflora on groundnut fodder M. Surekha and S.M. Reddy (Warangal, India)	167
Guide for Authors	173
VOL. 31 NOS. 3-4 DECEMBER	1990
Dietary preference and degradability of forage on a semiarid thornbush savannah by indigenous ruminants, camels and donkeys	
T. Rutagwenda, M. Lechner-Doll, W. von Engelhardt (Hannover, F.R.G.), H.J.	170
Schwartz (Berlin, F.R.G.) and W. Schultka (Giessen, F.R.G.)	179
J.C. Henning, C.T. Dougherty, J. O'Leary and M. Collins (Lexington, KY, U.S.A.) Degradation of leaf blades and stems by monocentric and polycentric isolates of ruminal fungi	
D.E. Akin, W.S. Borneman and C.E. Lyon (Athens, GA, U.S.A.)	205
The retention of phytin phosphorus from diets with fat supplements in broiler chicks S. Matyka, W. Korol and G. Bogusz (Lublin, Poland)	223
Feed intake and milk yield using an ensiled mixture of whole crop beets and straw compared with traditionally stored beets for dairy cows	
J.E. Hermansen (Tjele, Denmark)	231
C. de Blas and M.J. Villamide (Madrid, Spain)	239
Chemical and biological evaluation of soya-bean flakes autoclaved for different durations	247
F.H. Kratzer, S. Bersch, P. Vohra and R.A. Ernst (Davis, CA, U.S.A.)	247
E.H. Jaster and K.J. Moore (Urbana, IL, U.S.A.)	261
The utilization of pelleted, extruded, and extruded and repelleted diets by early weaned pigs	
W.C. Sauer, A.B. Pierce (Edmonton, Alta., Canada) and R. Mosenthin (Kiel, F.R.G.)	269
Effects of urea supplement with or without molasses on the intake, digestibility and live- weight changes of beef heifers fed native hay	
I.E.J. Iwuanyanwu, N.N. Umunna and N.I. Dim (Zaria, Nigeria)	277
M.R. Caro, E. Zamora, L. León, F. Cuello, J. Salinas, D. Megias, M.J. Cubero and A. Contreras (Murcia, Spain)	285
Performance of steers fed combinations of calcium salts of branched and unbranched fatty acids	
L.E. Deetz, M.C. Conner, J.A. Rogers, A.M. Papas and C.R. Richardson (Lubbock, TX, U.S.A.)	293

The effect of flocculant applied in the process of fractionating alfalfa juice on the chemical composition of the obtained protein concentrates  B. Baraniak (Lublin, Poland)	305
Nutritive value of Nigerian rubber seed ( <i>Hevea brasiliensis</i> ) meal and oil. IV. Effects of graded levels of rubber seed meal and oil on energy and nitrogen utilization by growing rats	
G.M. Babatunde (Ibadan, Nigeria) and W.G. Pond (Clay Center, NE, U.S.A.)	313
Effect of antibiotics, a deaminase inhibitor and Sarsaponin on nitrogen metabolism of rumen contents in vitro	
C.J. van Nevel (Melle, Belgium) and D.I. Demeyer (Brussels, Belgium)	323
Short Communication	
Effect of high inclusion levels of triticale in diets for laying hens containing 30% field beans	
J.I.R. Castanon, V. Ortiz and J. Perez-Lanzac (Córdoba, Spain)	349
Book Review	
Temperature pastures	355
Author Index	357